

# Installation Quickguide



**WLM2**



**WLTA**



**WLTD**



**WLTP**



**WLCT2**

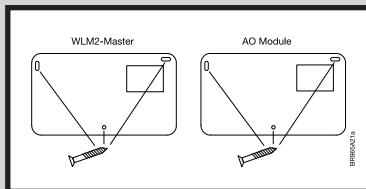
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# QUICKGUIDE

## QUICK INSTALLATION GUIDE

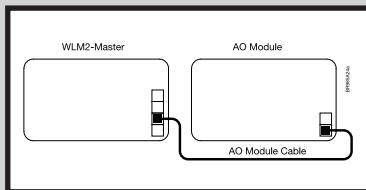
This Quickguide is for reference only and is not suitable for networked installations.  
For full installation details please refer to the full Installation manual supplied.



We recommend the preparation of an area schedule chart on the backside of the user manual before commencing the installation. This identifies piping circuits to specific rooms and enables the correct allocation of a channel number in the WLM2 system.

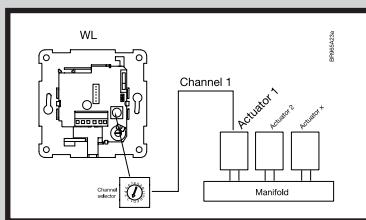
**1**

Mount the Master and AO modules in the correct way on the wall in accordance with electrical regulations.



**2**

Connect the AO-module, using the special cable included in the box.



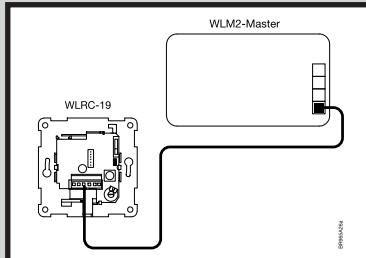
**3**

Mount the Room sensors/controllers in the rooms, and set the channel switches to correspond with the number of the actuator controlling that room.

For hardwired Room sensors/controllers now connect the 2-wire bus to the master or the AO module, maintaining continuity of positive + and negative - connections.

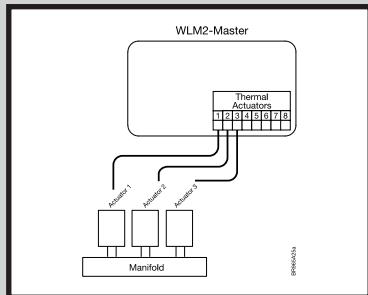
For wireless Room sensors/controllers now insert the batteries.

**NB:** For Room sensors with floor temperature limiting sensors, please refer to separate instructions included with Room sensors/controllers.



**4**

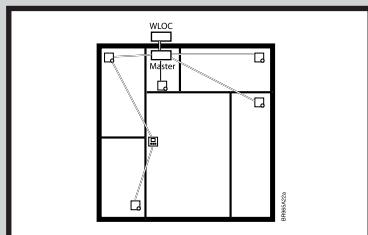
If the Room sensors/controllers are of wireless type connect the receiver (WLRC-19) using the special cable enclosed with the receiver.



**5**

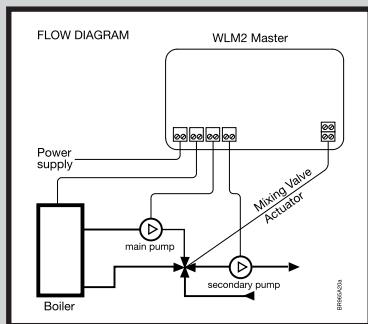
Connect the actuators to the channel outputs on the master in accordance with the pipe manifold layout (please refer to the area schedule).

Actuator no. 1 on the manifold to output no. 1 on the master.  
 Actuator no. 2 on the manifold to output no. 2 on the master.  
 etc.



**6**

Outdoor module WLOC-19 (FS Master only):  
 Install on north facing wall, away from direct sunlight.  
 Connect into 2-wire Room sensor bus or direct to master, maintaining continuity of positive + and negative - connections.



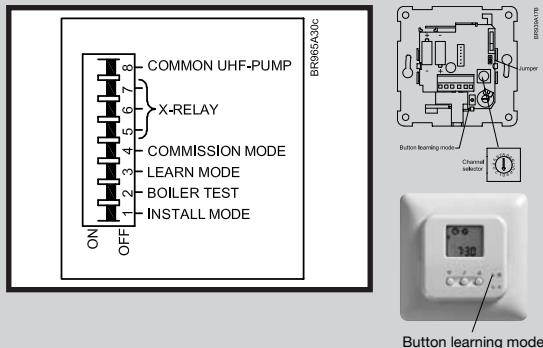
**7**

Connect 230 V AC power, UFH circulating pump and boiler in accordance with electrical regulations. (For FS masters, connect the mixing valve and water flow temperature sensors)

1. Turn on the power, and complete a full reset of the master by holding the tick button in for 16 seconds until all the area light alternately flash.
2. Set the clock on any WLCT2 room controller:
  - a. If the hour digit is not flashing, press the small pinhole button with the clock symbol, otherwise..
  - b. Adjust the hours and press OK.
  - c. Adjust the minutes and press OK.
  - d. Adjust the day number (1 = Monday) and press OK.
3. In addition to its own room, the WLCT2 room controller can be used to set the operating times and temperatures of other Room sensors (channels).  
To achieve this, do the following on the WLCT2 Room Controller.
  - a. If the WLCT2 Room controller already shows "CH 1" in the display please go directly to step "d".
  - b. Enter the "InFo" menu by pressing the up and down button simultaneously for 4 seconds.
  - c. Find the "ArEA" menu with the down button and press OK.
  - d. The display now shows "CH 1" (channel 1).
    - Press OK button.
    - Select "On" if this channel (Room sensor) should be controlled by the WLCT2 room controller by pressing the 'down' button, or "OFF" if not.
    - Now press OK button to get to the next channel (CH 2) and repeat this step until all required channels have been selected "On".
  - e. After all channels are set up, find the "ESC" menu entry and press OK.

NB: If different times and temperatures are required for other channels (Room sensors) within the system, more than one WLCT2 room controller can be used. Care must be taken to ensure that the action of selecting a channel "On" is not made on more than one WLCT2 room controller.

### ADDITIONAL STEPS FOR WIRELESS SYSTEM:



4. Switch on DIP-3 to activate learn mode:
5. All wireless Room sensors now have to be initialized:
  - Analogue Room sensor (WLTA,WLTD,WLTM,WLTP) by pressing the internal init button (Button learning mode) until a beep is heard.
  - Digital Room sensor (WLCT2) by pressing the pin hole button with the clock symbol until a beep is heard.
- When communication has been established the area LED on the master will illuminate.
6. Switch off DIP-3 to de-activate learn mode:

- 1.** Switch on DIP-3 to activate learn mode: - power light will blink quickly
- 2.** Each red channel light on the master should now be lit if a Room sensor is present on that channel.
- 3.** Switch off DIP-3 to de-activate learn mode again – power light stops blinking.
- 4.** Turn all adjustable temperature settings on the Room sensors to minimum.
- 5.** Switch on DIP-1 on the master to activate install mode (Install mode will be active for 2 hours
  - Pumps, boiler, mixing valve and actuators should now be off)Please note that during the Install mode the boiler will not fire unless dipswitch 2 is also activated, this is to reduce energy consumption and boiler cycling during the test process.
- 6.** Turn the temperature setting on the adjustable Room sensor in room 1 to maximum. The red channel 1 light should be lit and the actuator on output nr. 1 will be activated, and will open after 1-3 minutes, depending on the type of actuator.  
Important: If the Room sensor is of a wireless type a delay of up to 5 minutes may occur before the channel light becomes illuminated.
- 7.** Check that the UHF pump is running and the mixing valve (only FS master) opens .
- 8.** Repeat step 6 on all rooms.
- 9.** Boiler test function:  
Switch on DIP-2.  
This closes the boiler start relay contacts for 1 minute.
- 10.** To end all tests:
  - Switch off DIP-1 to deactivate install mode.
  - Switch off DIP-2 to deactivate boiler test.
  - Set all temperature knobs to default positionsRoom sensors (WLTA,WLTD,WLTM,WLTP) to zero (center position).  
Room controllers (WLCT2) recommended to 21°C.  
- Set all override switches on WLTM and WLTD Room sensors to automatic position (clock symbol).
- 11.** The system is now operating automatically.

Other important settings can be found in the User Manual.

## TROUBLESHOOTING:

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Problem	Possible cause & solution
Channel light is not coming on <i>(When in Learn mode)</i>	<p>Make sure the power light is fast blinking. If not then put DIP-3 to ON position.</p> <p>2-wire bus may be incorrectly connected. Voltage at each Room sensor should not be lower than 4.0V (check for + &amp; - continuity and short circuits)</p> <p>For wireless Room sensors, please check that the batteries have been inserted correctly.</p> <p>For wireless systems has the init button been pressed.</p> <p>For wireless Room sensor check that the WLRC2-19 (receiver) is correctly connected.</p> <p>For channel 9-14, is the AO module correctly connected to the Master.</p> <p>Make sure the Room sensor in that room is set to the correct channel number.</p> <p>The channel selector on the Room sensor may be slightly out of position, try rotating and the set it again.</p> <hr/>
Channel light is not coming on <i>(When in Install mode, when the Room sensor is activated (set to maximum))</i>	<p>Master has canceled install mode by itself – after 2 hours the master automatically de-activates install mode – please reset the DIP-1.</p> <p>Make sure the Room sensor in that room is set to the correct channel number. (two Room sensors could be crossed over)</p>
The actuator on the manifold has not opened after 3 minutes	<p>Check the red channel light is illuminated (if not see above).</p> <p>The actuator for the room is not connected to the correct output on the master.</p> <p>Bad electrical connection between actuator and terminals.</p> <p>Actuator may be faulty or manually locked.</p>
UFH Pump not starting in install mode	<p>Bad electrical connection between pump and terminals.</p> <p>Install mode is not activated. Move dip-switch 1 to the off position and then back to the on position.</p> <p>Pump may be faulty.</p>

Output relay for Main pump, Cooling, High limit valve or other attached device.	Incorrect connection to device (X-output relay has volt free contacts, see master wiring diagram for correct connection)  Bad electrical connection between terminals and attached device.  Install mode not activated, set dipswitch to off and then on again to commence install mode for 2 hours.  Attached device may be faulty.  Dip switches may be incorrectly set, see Installation Manual, “Free relay Function(X-output)” for details.
Boiler does not fire <i>(LED lit)</i>  <i>(LED not lit)</i>	Incorrect connection to device (output relay has volt free contacts, see master wiring diagram for correct connection)  Bad electrical connection between terminals and attached device.  During Install mode the boiler relay will not operate.  Attached device may be faulty.  Timing sequence delay is activated  FS master only - mixing valve not open above 20%  No heat demand from Room sensors.  Master is in cooling mode.
Mixing valve does not operate correctly <i>(When in install mode)</i>  <i>(Valve cycles between open and closed in normal operating mode)</i>	Incorrect connection, see master wiring diagram for correct connection.  Valve/actuator assembly is incorrect.  Actuator is faulty.  Check what happens if sensor and/or outdoor module is missing.  Valve may be oversized.  Supply Limit sensor may be subject to heat migration.  Upstream water temperature is excessively high. (these problems may be corrected by changing PI settings – please refer to the main manual)  Incorrectly installed, refer to the installation instructions supplied with the actuator

Room is too cold.  
(After running for at least 48 hours)

The Room sensor is placed in a position that does not represent the general temperature in the room. E.g. mounted on external wall or near an extraneous heat source.

If the room is controlled by a WLCT2 Room sensor, check that the time and temperatures are set correctly.

If the Room sensor has got an override switch (WLTM or WLTD), the switch may be set in the "off" or "night" position.

For rooms with floor sensors, the maximum floor limit setting could be preventing the room reaching the desired temperature.

Insufficient heating capacity of the system.

Bad insulation creating large heat loss.

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Room is too hot  
(After running for at least 48 hours)

This could be caused by draughts affecting the temperature measuring ability of the sensor, this could either, internal cavities or external sources such as open doors or windows

The Room sensor is placed in a position that does not represent the general temperature in the room.

If the room is controlled by a WLCT2 Room sensor, check that the time and temperatures are set correctly.

If the Room sensor has got an override switch (WLTM or WLTD), the switch may be set in the "day" position.

For rooms with floor sensors, the minimum floor limit setting could be increasing the room temperature above the desired setting.

Solar gain or extraneous heat source.







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